Docket No.: 1293.1053C3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Ju-ha PARK

Serial No. 12/822,878 Group Art Unit: 2421

Confirmation No. 6680

Filed: June 24, 2010 Examiner: Robert J. Hance

For: METHOD OF ACQUIRING PROGRAM GUIDE INFORMATION, PROGRAM GUIDE METHOD APPROPRIATE FOR THE SAME, AND PROGRAM GUIDE APPARATUS

DECLARATION

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

I, Glenn Arthur Adams Jr., residing at 15 Ranch Trail, Evergreen, CO 80439, declare:

1. I received a B.S. in Physics from University of California in 1978; an M.A. in Classics from the University of California in 1980 and a Ph.D. in Computational Linguistics from Harvard University 1982; I am the co-author of ATSC A/65 Program and System Information Protocol (PSIP) and a member the ATSC T3/S8 (the committee which published the PSIP); my publications include co-author ATSC A/65 (PSIP), author and editor ATSC A/100 (DASE), A/101 (ACAP), co-author CableLabs OCAP (tru2way); author and editor CableLabs EBIF, co-author Unicode Standard; co-author ISO/IEC 10646, co-author ISO/IEC TR 15285, co-author W3C HTML, CSS, DOM, XSL-FO specifications, and author and editor W3C Timed Text specification; my U.S. patents include 7,353,518, 7,353,519, 7,356,821, 7,356,822, 7,376,030, 7,367,031, 7,805,746, 7,818,667, 7,827,564, 7,836,544, 7,898,600 and 7,903,176; I am currently a consultant for Cox Communications and Samsung Electronics on projects that have largely revolved around standardization and industry consortia, mostly related to development and specification of technology standards, including work on or with the following: ATSC DASE, Blu-Ray, ITU IPTV Focus Group (Security), OCAP (tru2way), Open IPTV Forum, W3C (Web Related Standards); my current and former clients also include Cable Laboratories, Comcast, IBM Research, Microsoft and Time Warner Cable; and within the subject matter of the above-identified application my experience, in addition to the PSIP experience noted above,

includes Digital Television (DTV) Systems Architect for Gemstar International, responsible for DTV Electronic Program Guide technologies, including use of ISO/IEC 13818-1 PSI and ATSC A/65 PSIP for transmission and navigation of Electronic Program Guide information.

2. I have read and studied the above-identified application, including: the Office Action mailed on June 14, 2011; the U.S. patents discussed in the Action (Kondo et al. 6,763,522 (Kondo), Eyer 6,483,547 (Eyer), Noguchi et al. 6,034,677 (Noguchi), Citta et al 5,583,889 (Citta), Ozkan et al. 6,031,577 (Ozkan); and the papers filed with the U.S. Patent and Trademark Office (USPTO) including the Supplemental Amendment filed on or about July 1, 2011.

3. The inventor in the above-identified application was confronted with the problem of how to navigate main and sub channel numbers that are received in a digital transport stream using a typical hand held remote control that includes up/down/right/left cursor motion keys and a key pad (with no keys for individual alphabetic letters).

4. I note that the inventor solved the problem noted above with a method as described in claim 1 where claim 1 of the above-identified application states;

> A method of channel searching for a digital television receiver, comprising:
>
> receiving a digital television transport stream which includes audio, video, and program information; extracting the program information from the received transport stream;
>
> storing the extracted program information in a storage;
>
> accessing the storage to generate a channel list based on the stored program information, wherein the channel list comprises at least one channel number and the at least one channel number comprises at least one main channel number in the received transport stream; and
>
> navigating the channel list to search a channel number,
>
> wherein when the at least the one main channel number has at least one corresponding sub-channel number in the received transport stream, the sub-channel number can be listed after the at least one main channel number wherein the channel list can be accessed according to a listing sequence comprising main channel numbers and respective sub-channel numbers.

5. I note that the Office Action states:

> As to claim 1 Kondo discloses a method of channel searching for a digital television receiver, comprising:
>
> receiving a digital television transport stream which includes audio,

video, and program information (col. 5 lines 19-30);

extracting the program information from the received transport stream (col. 5 lines 19-30; Fig. 1: 15 — program information stream 15 is extracted from transport stream);

storing the extracted program information in a storage (col. 8 lines 20-29 — EPG data is stored in memory);

accessing the storage to generate a channel list based on the stored program information, wherein the channel list comprises at least one channel and the at least one channel comprises at least one main channel (Figs. 2A and 2B — main channel "Fox" has a number of sub-channels, Fox-1 - Fox-5); and

navigating the channel list to search a channel (col. 6 lines 41-48 — cursor 55 is movable, therefor able to search through the channel list),

wherein when the at least the one main channel has at least one corresponding sub-channel number, the sub-channel number can be listed after the at least one main channel (Figs. 2A and 2B — sub-channels are numbered and are listed after (below) the main channel in the menu).

Kondo fails to disclose that the main channel in the channel list comprises a main channel number, and that the displayed channel numbers are received in the transport stream.

However, in an analogous art, Eyer discloses a program guide which displays service characteristics including main channel name and number as well as minor (sub) channel numbers, where the service characteristics are received in the transport stream (col. 2 lines 53-55 - VCTs are received in the transport stream; col. 4 lines 22-35 - the VCTs contain service characteristics including channel name, and major and minor channel numbers; col. 6 line 60-col. 7 line 5-the service characteristics received in the VCT are displayed).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Kondo with the teachings of Eyer by displaying main channel numbers along with the main channel name, and by displaying the channel numbers that are received in the TS. The rationale for this modification would have been to: a) further aid in users' identification of the channels by providing two pieces of channel identification information (name and number), and/or b) enable users to consistently recognize channel numbers by displaying the numbers provided by the service provider.

(See Action, page 8, line 21 – page 10, line 15)

I also note the Office Action states

Applicant argues on pages 5 that Kondo does not disclose minor

> channels. Applicant respectfully disagrees, and again points to the specification of Kondo, which repeatedly refers to the channels as minor channel (see for example col. 6 lines 7-15). Applicant argues that Kondo does not teach a numbered list of minor channels, numbered 1 through 5. A skilled artisan would recognize that this is a NUMBERED list of minor channels. Please note that Kondo was not relied upon to disclose displaying the channel numbers that were received in the transport stream; the Eyer reference cited to teach this limitation. In combined system of Kondo and Eyer, a program guide displays a main channel and number, as well as sub-channel names and numbers, wherein the displayed information is received in the transport stream. See Eyer 2:53-55; 4:22-35, and 6:60-7:5.
>
> I note that the Office Action also states:
>
> As explained above, Kondo was merely relied upon to teach displaying a main channel that has at least one corresponding sub-channel number. Eyer teaches receiving channel numbers in the transport stream and displaying the received information. It is the combination of Kondo and Eyer that discloses displaying channel numbers that are received in the transport stream.

(See Office Action, page 4, lines 18 – 22)

6. In my opinion, Kondo does not discuss channel numbers, but rather discusses channel names. Figures 2A-D of Kondo do NOT display a main (major) channel number. Indeed, notwithstanding the col. 6, line 15 statement "for the currently selected major channel", a main (major) channel number is NOT depicted in Figure 2A. Furthermore, the association of a single name "FOX" with a "major channel" is not supported or borne out of PSIP which Kondo uses (see the discussion below), for every minor channel in a PSIP VCT may use a different name (leading to no common name for a 'major' channel designation), and every minor channel in all PSIP VCT may use the same name (leading to inconsistencies or incorrect grouping of minor channels with an arbitrary name).

7. In Kondo Fig 2A-D, if there has been a grouping of entries around the values appearing in the VCT short_name fields, e.g., all entries that share the value "FOX" are grouped together, then such a grouping is entirely arbitrary and is not related to sharing the same physical channel number or sharing the same VCT major channel number.

8. All the discussion in Kondo revolves around displaying a list of minor channels (names). Kondo does not specify display of major (main) channel program information or any relationship between minor (sub) channel program information and major (main) channel program information.

9. Kondo addresses navigation of channels by using a list that includes minor channel names.

10. Figures 2A-D of Kondo depict the use of a synthesized NAME for the purpose of identifying a virtual channel (what Kondo refers to as a 'minor channel'). For example, both 'FOX' and 'FOX-1' are names, not numbers. Kondo further does not teach how these names are synthesized (derived), and a number of possible methods are evident to a practitioner. That is, Kondo does not teach the use of main and minor channel numbers.

11. Kondo uses the names 'FOX-1', 'FOX-2', etc., in Figures 2A and 2C, while a sub-menu with entries '1', '2', etc., are shown under a 'FOX' menu in 2B and 2D. Let us divide the two parts of 'FOX-1' into *part-1* 'FOX' and *part-2* '1'. Now, *part-1* may be derived from multiple sources, including (1) the short_name field of the VCT, or (2) indirectly, using the source_id field of the VCT to access a pre-stored database of sources to lookup a source name.

12. It should be noted that Kondo col. 10, line 25 refers to a 'channel identifier' as an attribute of a 'major channel' obtained by 'scanning the broadcast frequency slots'; however, the form and source of this identifier is not indicated. It could be a physical channel number, a transport stream identifier, a logical major channel number (as obtained from a VCT entry), or a name as described in the previous comment.

13. The derivation of *part-2* of examples 'FOX-1', 'FOX-2', etc., may be derived from multiple sources, including (1) the minor_channel_number field of the VCT, (2) the program_number field of the VCT, (3) the entry number of the VCT (entry 1, 2, ...), or (4) information indirectly derived from a source database using the source_id field as a index.

14. The two part names depicted by Kondo in Figures 2A and 2C are NAMES, and are NOT NUMBERS. The inclusion of a NAME based component (part 1) requires that the composition (part 1 plus part 2) be interpreted as a NAME or IDENTIFIER. In Kondo, these names/identifiers designate virtual channels (what Kondo refers to as a 'minor channel'). That is, the Kondo names are not numbers.

15. In Kondo Figures 2B and 2D, the use of a sub-menu identifier '1' through '5' in the context of a main menu identifier 'FOX' constitute alternative representations of NAMES, and NOT NUMBERS. In these cases, the combination of the 'FOX' main menu identifier and the '1' through '5' sub-menu identifiers are clearly equated with the two-part names 'FOX-1' through 'FOX-5' shown in Figures 2A and 2C.

16. Kondo implies but does not teach that unification is possible and used with the names of a group of virtual channels that share the same major channel number. 2A through 2D show a unified name 'FOX' applied to virtual channels 'FOX-1', 'FOX-2', ..., 'FOX-5'. As such, Kondo relies upon the displayed grouping being based on the unification of part 1 of Kondo's two part channel name identifiers.

17. Note, that irrespective of the use of part 1 name information, Kondo col. 14, line 6+ implies a (unification) grouping based upon "minor channels that are being simultaneously broadcast by said selected broadcaster", where by 'selected broadcaster' we must read "selected physical transmission channel". This would not by itself necessarily permit unification of multiple virtual channels under a single part 1 name component.

18. When Kondo uses 'major channel', it designates a 'physical transmission channel' (PTC) (cf. column, 1, line 60, column 10, line 21+), while 'minor channel' designates a 'virtual channel' (VC) (cf. column 1, line 62). Kondo uses two-part name identifiers to designate VCs. Kondo uses an unspecified, hidden unification method to group VCs under a single component of these two part name identifiers. Kondo does not address non-unification conditions (distinct short names of related VCs in a single PTC). Kondo does not use numbers, either one-part or two-part numbers, to designate VCs.

19. Eyer, like Kondo, uses virtual channel tables which results in the arbitrary groupings discussed below.

Eyer DOES NOT discuss presentation order of a channel map or channel list, nor does Eyer discuss how the user moves (navigates) from one channel selection to another." Kondo does not teach a method employed to sort the channel list. Nor does Kondo teach a method by which the television viewer enters information so as to cause the cursor to move between entries. Eyer does not discuss the visual representation of a program list or program guide, nor is the means by which a user selects or navigates to or amongst channels or programs indicated. The combination of Kondo and Eyer does not teach how to sort (order) entries in the channel list. Only in the depiction in Kondo Figures 2A through 2D may one infer the existence of some ordering. However, a knowledgeable reader observes that the ordering used in those figures is lexicographic order (not a numeric sequence), with the primary sort key being the broadcaster's name and the secondary sort key being a combination of that name and a suffix composed of a hyphen '-' followed by a numeric index starting from '1'. How this broadcaster name and numeric index is obtained is not taught by Kondo.

If the names of Kondo, e.g., FOX-1 through FOX-5, were replaced with the "major"."minor" scheme noted by Eyer (4:28ff), then a sequence may be produced without difficulty that remains navigable by major and minor channel numbers. Note, however, that since Kondo does not teach the method for obtaining 'FOX-1', etc., it is not certain whether the resulting order would be numerically sequential. For example, in using Eyer's two part numbers, we may have the following mapping:

"FOX-1" → "5.1"
"FOX-2" → "7.3"
"FOX-3" → "3.2"
"FOX-4" → "27.0"
"FOX-5" → "33.99"

That is, a single physical transmission channel may contain five virtual (minor) channels (i.e., sub-channels), where the major_channel_number entries in the VCT table that corresponds to these virtual channels use distinct values (5, 7, 3, 27, 33) rather than a single value (e.g., 17).

As a consequence, the resulting list may cause difficulties for the viewer when presented with a list of minor channels designated by what appears to be an arbitrary order:

FOX
- 5.1
- 7.3
- 3.2
- 27.0
- 33.99

Furthermore, this would prevent using a single value for the "major (main) channel" designation.

20. In view of above, my opinion is that Kondo fails to teach displaying a main channel that has at least one corresponding sub-channel number and Eyer does not discuss or suggest creating a channel list or that channel numbers be used in the place of channel names.

21. I also note that the Office Action states:

The combined system of Kondo and Eyer fails to disclose that the channel list can be accessed according to a listing sequence comprising main channel numbers. However, in an anologus art, Noguchi discloses that the channel list can be accessed according a listing sequence comprising main channel numbers (Fig. 8 – channels are sorted by main channel number). (see action page 10 lines 16-20) .

22. In my opinion, Noguchi fails to disclose "main channel number wherein the channel list can be accessed according to a listing sequence comprising main channel numbers and **respective sub-channel numbers,**" since Noguchi merely discloses a listing sequence channel numbers. Noguchi can not cure the deficiencies of the combination of Kondo and Eyer that the channel list can be accessed according to a listing sequence comprising main channel numbers and **respective sub-channel numbers.**

23. I note that claim 5 of the above-identified application states:

> A method of channel searching for a digital television receiver, comprising:
>
> receiving a digital television transport stream which includes audio, video, and program information;
>
> extracting the program information from the received transport stream;
>
> storing the extracted program information in a storage;
>
> accessing the storage to generate a channel list based on the stored program information, wherein the channel list comprises at least one channel number and the at least one channel number comprises at least one main channel number in the received transport stream; and
>
> navigating the channel list to search a channel number,
>
> wherein when the at least the one main channel number has at least one corresponding sub-channel number in the received transport stream, the sub-channel number can be listed after the at least one main channel number,
>
> wherein the channel list can be navigated using Program Specific Information (PSI).

24. I note that the Action rejects claim 5 and particularly states:

> Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo in view of Eyer, and further in view of Ozkan et al., US Patent No. 6,031,577.
>
> As to claim 5 the combined system of Kondo and Eyer fails to disclose: wherein the program information can be navigated using a Program Specific Information (PSI). However, Ozkan discloses a similar system in which EPG data is received in the form of program specific information (PSI) which includes major and minor channel numbers (program meta-data can "comply with Program Specific Information (PSI) requirements specified in section 2.4.4

> of the MPEG system standard":col. 2 lines 55-59; col. 3 line 54 — col. 4 line 22; Fig. 3; col. 5 line 63 — col. 6 line 35 — PSI tables contain EPG information including major and minor channel numbers, which are used to select channels).
>
> It would have been obvious to a skilled artisan to modify the system of Kondo and Eyer with the teachings of Ozkan by sending EPG information as program specific information (PSI), the rationale being to enable the combined system to function properly in a broadcast environment that uses PSI, rather than the program and system information protocol described (PSIP) by Kondo. A skilled artisan would recognize that this would be the preferable method of adapting the system of Kondo and Eyer to function in a PSI environment. A skilled artisan would recognize that the alternative, which would be overhauling a PSI system to use PSIP, would be costly and time-consuming. In the combined system of Kondo, Eyer, and Ozkan, as EPG data is received as PSI, this PSI is used to navigate the program information within the guide.

(See Office Action, page 16, line 19 – page 17, line 15)

I also note that the Action states:

> Applicant argues on page 12-13 that PSI does not contain a mechanism to transmit major and minor channels, and therefore the system of Kondo and Eyer could not be modified by a skilled artisan to use PSI to carry this information. Exminer respectfully disagrees . the disclosure of Ozkan is proof that major and minor channels being transmitted via PSI was within the capabilities of a skilled artisan at the time of the invention. Ozkan discloses that program meta-data can "comply with Program Specific Information (PSI) requirements specified in section 2.4.4. of the MPEG system standard" ((2:55-59). This meta-data includes program information , including major and minor channel numbers (3:54-4:22; 5:63-6:35; Fig. 3). Applicant argues on pages 13-14 that PSI could not carry the same information as PSIP, as PSI is only designed to carry 80kbps, while PSIP carries 100kbps. This is irrevalent, as Ozkan has shown that the major and minor channel numbers are effectively transmitted using PSI.

(See page 6, lines 9-20 of the Office Action).

25. Regarding these assertions by the Examiner:

As published in 1998, MPEG-2 PSI (i.e., ISO/IEC 13818-1 Section 2.4.4) defines four types of tables, three (PAT, PMT, and CAT) having a standard format and content and one (NIT) having a non-standardized form and content.

None of the PAT (Program Association Table), PMT (Program Map Table), or CAT (Conditional Access Table) contains program information meta-data or defines a mechanism for the purpose of carrying major and minor channel numbers.

The concept of major and minor channel numbers is not defined in

MPEG-2 PSI, nor is the concept of a logical or virtual channel (or service).

If a skilled artisan were to propose that MPEG-2 PSI should be extended to carry program information, then grave difficulties would be faced, effectively making such an extension impractical, including (but not limited to):

The transmission and reception of program information meta-data must be standardized so that both television broadcasters and television manufacturers respectively encode and decode such information based on a common, standard format (syntax) and content (semantics).

In 1997, prior to the filing of both Kondo and Eyer, the FCC had already adopted the use of ATSC A/65 (PSIP) for the purpose of transmitting standardized program information meta-data in Digital Television Systems as adopted in ATSC A/53 (1995) "ATSC Digital Television Standard".

The frequency and amount of data included in MPEG-2 PSI tables, particularly in PAT and PMT tables, has a critical impact on program acquisition time, and, consequently, on perceived channel change time, cf. ISO/IEC 13818-1 Annex C (Bandwidth Utilization and Acquisition Time). As a result, there is a general requirement that the frequency and amount of PSI data be minimized to support a target, average acquisition time in the context of random TS access. ATSC A/53:1995 (as adopted by the FCC), prescribes a leak rate of 100,000 bits per second, cf. 5.6.1.2, which indicates that up to 100kbps is to be allocated for program information meta-data.

ISO/IEC 13818-1:1996, Section 2.4.2.3 Buffering prescribes a maximum bit rate for system data (which includes PSI) as Rsys = max (80,000bps, transport_rate(i) * 8 bits/byte / 500), which, since transport_rate = 2,400,000 bytes/sec (19.2mbps) for the ATSC Digital Television Standard, works out to Rsys = max (80,000, 2,400,000 * 8 / 500) = max (80,000bps, 38,400bps) = 80,000 bps.

Since ATSC A/53 requires that 100,000bps be available for program information meta-data, but since MPEG-2 13818-1 limits all system data (including PSI data) to 80,000bps, then it is impossible to use MPEG-2 PSI to deliver program information meta-data at a rate that satisfies ATSC A/53 allocations.

In conclusion, it is impractical (and possibly impossible) to effectively use MPEG-2 PSI to deliver the same program information meta-data as defined by PSIP (A/65) in a manner that complies with ATSC A/53 Digital Television Standard, and thus, that would comply with FCC regulations.

Consequently, a skilled artisan WOULD NOT consider the use of MPEG-2 PSI as a viable alternative for delivery of program information.

26. I note that Ozkan states:

FIG. 1 is a block diagram of a digital video receiving system for demodulating and decoding broadcast signals, according to the principles of the invention. Although the disclosed system is described in the context of a system for receiving video signals incorporating program specific information including program guide data in MPEG compatible format, it is exemplary only. The program specific information may be of a variety of types. For example, it may comply with Program Specific

Information (PSI) requirements specified in section 2.4.4 of the MPEG systems standard or it may comply with the high definition television (HDTV) signal standard Digital Television Standard for HDTV Transmission of Apr. 12 1995, prepared by the United States Advanced Television Systems Committee (ATSC) or other ATSC standards. Alternatively, it may be formed in accordance with proprietary or custom requirements of a particular system.
(See Ozkan, col. 2, lines 49-65)
The transport stream provided to decoder 100 comprises data packets containing program channel data and program specific information. Unit 22 directs the program specific information packets to processor 60 which parses, collates and assembles this information into hierarchically arranged tables. Individual data packets comprising the User selected program channel are identified and assembled using the assembled program specific information. The program specific information contains conditional access, network information and identification and linking data enabling the system of FIG. 1 to tune to a desired channel and assemble data packets to form complete programs. The program specific information also contains ancillary program guide information (e.g. an Electronic Program Guide--EPG) and descriptive text related to the broadcast programs as well as data supporting the identification and assembly of this ancillary information.
The program specific information is assembled by processor 60 into multiple hierarchically arranged and inter-linked tables. An exemplary hierarchical table arrangement includes a Master Guide Table (MGT), a Channel Information Table (CIT), Event Information Tables (EITs) and optional tables such as Extended Text Tables (ETTs). The MGT contains information for acquiring program specific information conveyed in other tables such as identifiers for identifying data packets associated with the other tables. The CIT contains information for tuning and navigation to receive a User selected program channel. The EIT contains descriptive lists of programs (events) receivable on the channels listed in the CIT. The ETT contains text messages describing programs and program channels. Additional program specific information describing and supplementing items within the hierarchical tables is conveyed within descriptor information elements. The program specific information acquired by processor 60 via unit 22 is stored within internal memory of unit 60.
(See Ozkan, col. 3, line 54-col. 4, line 22)
The program specific information including MGT, CIT, EIT, and ETT data and associated descriptors acquired and collated by processor 60 incorporates advantageous features exemplified in the data formats presented in FIGS. 2-9. These features facilitate the identification, acquisition, assembly and decoding of program channel content and associated program guide data by decoder 100 (FIG. 1). Processor 60 forms a MGT as exemplified by the data format of FIG. 2 by accessing and assembling the program specific information packets that are stored in the unit 60 internal memory. The MGT contains data identifiers e.g. PID_ETT 205 and PID_PG 210 (FIG. 2) enabling the assembly of the CIT, EIT and ETT tables. Processor 60 uses the MGT data identifiers to access and assemble the program specific information packets to form the CIT, EIT, and ETT data and associated descriptors.
Processor 60 uses the acquired CIT channel map information, as exemplified in FIG. 3, to identify the packets comprising the sub-channel SC that the User selected to view. A user selects sub-channel SC for viewing by entering two

program channel numbers via remote control unit 70 and interface 65. Individual program channels are advantageously allocated both a first and a second identification number. The first identification number (a major number as indicated by bundle_number 300 in FIG. 3) identifies the broadcast source and broadcaster channel brand number e.g. Fox 5.TM., Channel 13.TM.. The first identification number indicates a broadcast source of a program or service and may be independent of the RF channel on which the program is broadcast. However, in other embodiments the first identification number may be associated with a broadcast RF channel or be associated with other program characteristics such as a program category or theme e.g. movies. The second identification number (a minor number as indicated by channel_number_in_bundle 305 in FIG. 3) identifies a sub-channel corresponding to a specific service within a group of services provided by a broadcaster. The first and second identification numbers in conjunction identify a particular service as a sub-channel provided by a specific broadcaster. Although, the selected sub-channel SC may occupy an RF bandwidth within an encompassing channel spectrum associated with the broadcast source, neither the first or second identification numbers are associated with such a spectrum. However, this association may be made in an alternative embodiment. This dual numbering system enables a broadcaster to retain channel brand identity across a range of dynamically allocable broadcast sub-channels.
(See Ozkan, col. 5, line 63-col. 6, line 42)

27. The program and system information (PSI) discussed in Kondo, the electronic program guide (EPG) information that includes event information discussed in Kondo, and the Program and System Information Protocol (PSIP) (see col. 2, lines 42-50) are all different from the Program Specific Information (PSI) of claim 5 for the reason discussed below.

28. Both the acronym 'PSI' and its commonly understood meaning "program specific information" are defined by ISO/IEC 13818-1:1996, Sections 2.1.44 and 2.4.4.

29. The commonly understood meaning of program specific information (PSI), as defined by ISO/IEC 13818-1:1996 Section 2.4.4, includes the following:

- private section syntax
- program association table (PAT)
- program map table (PMT)
- network information table (NIT)
- conditional access table (CAT)

30. The commonly understood meaning of program specific information (PSI) does NOT include ATSC A/65:1997 Program and System Information Protocol (PSIP), nor does it include the tables defined by PSIP:

- SIT (System Information Table)
- RRT (Rating Region Table)
- MGT (Master Guide Table)

- VCT (Virtual Channel Table)
- EIT (Event Information Table)
- ETT (Extended Text Table)
-

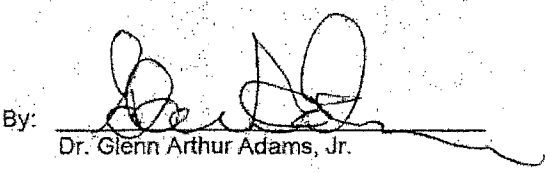
31. It is clearly understood by those practiced in the field that have ordinary skill that PSI and PSIP are distinct, and that PSI is not contained within PSIP, and that PSIP is not contained within PSI.

32. The EPG data and "program specific information" discussed in Ozkan, particularly as discussed in col. 5, line 63-col. 6, line 43, is different from the Program Specific Information (PSI) of claim 5 for the reasons discussed below.

33. The Master Guide Table (MGT), a Channel Information Table (CIT), Event Information Tables (EITs) and as Extended Text Tables (ETTs) used by Ozkan are very different from the tables of Program Specific Information (PSI) stored as a table with respect to program associated information prescribed in MPEP-2.

34. In my opinion, one of skill in the art would not look to the discussions of Ozkan or Ozkan in combination with Eyer and Kondo to improve the digital television receiver of claim 5 so that a channel list of main and sub channel numbers can be navigated using Program Specific Information (PSI).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-identified application or any patent issued thereon.

Date: 02/14/2012 By: 
Dr. Glenn Arthur Adams, Jr.